

[Name of Document] CALAIMS

1. A magnetic core member for an antenna module, said member stacked for a loop-shaped antenna coil, characterized in that:
5 a recess is provided on a surface thereof facing said stacked antenna coil, at least in an area facing the loop portion of said antenna coil.
2. The magnetic core member for an antenna module, as described in
10 claim 1, characterized in that:
said recess is a ring-shaped groove formed in a region corresponding to the loop portion of said antenna coil.
3. The magnetic core member for an antenna module, as described in
15 claim 1, characterized in that:
said recess is dimples formed on the surface of said member at a plurality of positions.
4. The magnetic core member for an antenna module, as described in
20 claim 1, characterized in that:
depth of said recess is less than 0.1 mm.
5. An antenna module having a loop-shaped antenna coil formed on a base, said base stacked by a magnetic core member, said antenna
25 module characterized in that:
said magnetic core member is provided with a recess formed on a surface on which said base is stacked, at least in an area facing the loop portion of said antenna coil.
- 30 6. The antenna module as described in claim 5, characterized in that:

said recess is a ring-shaped groove formed in a region corresponding to the loop portion of said antenna coil.

7. The antenna module as described in claim 5, characterized in
5 that:

said recess is dimples formed on the surface of said core member at a plurality of positions.

8. The antenna module as described in claim 5, characterized in
10 that:

depth of said recess is less than 0.1 mm.

9. The antenna module as described in claim 5, characterized in
that:
15 a metal shield plate is provided with said magnetic core member on a surface thereof opposite to the surface on which said base is stacked.

10. The antenna module as described in claim 5, characterized in
that:
20 a signal processing circuit unit electrically connected to said antenna coil is mounted on said base.

11. The antenna module as described in claim 10, characterized in
that:
25 said signal processing circuit unit is mounted on a surface of said base, facing said magnetic core member, and an opening is provided in said magnetic core member for accommodating said signal processing circuit unit.

30 12. The antenna module as described in claim 5, characterized in that:

said magnetic core member is formed as a sheet by dispersing magnetic powders of Fe-Si-Cr system into binder.

13. A portable information terminal having a housing wherein a base
5 for supporting a loop-shaped antenna coil, a magnetic core member stacked on said base, and a metal shield plate stacked on said magnetic core member are mounted in the housing, said portable information terminal characterized in that:

10 said magnetic core member is provided with a recess formed on a surface on which said base is stacked, at least in an area facing the loop portion of said antenna coil.

14. The portable information terminal as described in claim 13, characterized in that:

15 said recess is a ring-shaped groove formed in a region corresponding to the loop portion of said antenna.

15. The portable information terminal as described in claim 13, characterized in that:
20 said recess is dimples formed on the surface of said core member at a plurality of positions.

16. The portable information terminal as described in claim 13, characterized in that:
25 depth of said recess is less than 0.1 mm.

17. The portable information terminal as described in claim 13, characterized in that:
30 said magnetic core member is formed as a sheet by dispersing magnetic powders of Fe-Si-Cr system into binder.